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Remarks

Reconsideration of the above-identified application is respectfully requested.

In the present amendment, claims 1, 3, 4, 8-13 and 20-22 have been canceled and claims 16, 17 and 19 have been amended. Therefore, the only claims currently pending in this application are claims 16, 17 and 19.

In paragraph 7 of the Office Action the Examiner has objected to the drawings because the elements in Figure 1 are not clearly distinguishable. Figure 1 has accordingly been replaced by a new drawing which applicants submit is more clear than the original.

In paragraph 8 of the Office Action the Examiner has objected to the drawings because they do not include reference sign 91b mentioned in connection with Figure 4 or reference sign 30 mentioned in connection with Figure 5. In response to this objection, Figure 4 has been amended to add the reference sign 91b to the branch cable connecting the junction 93 with the electrical connector 90b. In addition, the paragraph beginning on line 14 of page 8 has been amended to change the reference sign 30 to "14", which does appear in Figure 5. Applicants respectfully submit that these changes have overcome the Examiner's present objection to the drawings.

In paragraph 9 of the Office Action the Examiner has objected to the drawings because they include reference signs 92a and 104 in Figure 7, but these reference signs are not mentioned in the description. In response to this objection, Figure 7 has been amended to delete reference sign 104 and to

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change reference sign 92a to "90a". In addition, the paragraph beginning on line 28 of page 6 has been amended to change the reference to "Complementary connectors such as 92 . . ." to "Complementary connectors such as 90a' and 90n'" Applicants respectfully submit that these changes have overcome the Examiner's present objection to the drawings.

In paragraph 10 of the Office Action the Examiner has stated that the title of the invention is not descriptive. The title has accordingly been amended to read: Control System for a Subsea Installation. Applicants submit that this title is sufficiently descriptive of the invention to which the claims are directed.

In paragraph 11 of the Office Action the Examiner has objected to the disclosure because of several informalities.

First, the Examiner notes that the abbreviations FPSO, RAM, EPROM, EEPROM and CAN appear in the specification without mentioning the terms to which the abbreviations correspond. The specification has accordingly been amended to insert the terms to which these abbreviations correspond.

Second, the Examiner notes that on page 6 the reference sign 92 is used to refer to both the harness unit and the complementary connector. This paragraph has accordingly been amended to change the reference sign associated with the complementary connector to "90a".

Third, the Examiner notes that it is not clear where in Figure 5 the module 30 mentioned on page 8, line 14 is shown. This portion of the specification has accordingly been amended to change reference sign 30 to "14".

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In paragraph 12 of the Office Action the Examiner has objected to the claims because of several informalities. Claims 1, 3, 9 and 20-22 have been canceled, without prejudice. Claims 16, 17 and 19 have been amended in accordance with the Examiner's suggestions.

In paragraph 13 of the Office Action the Examiner has rejected claims 1, 3, 4, 8, 9, 11-13, 16, 17 and 20-22 under 35 U.S.C. 103(a) as being obvious over AAPA in view of Sitte and Suganuma et al. (U.S. Patent No. 7,349,479). Claims 1, 3, 4, 8, 9, 11-13 and 20-22 have been canceled, without prejudice. However, applicants maintain that claims 16 and 17 are patentable over any permissible combination of AAPA, Sitte and Suganuma.

Applicants respectfully submit that the Examiner's understanding of Sitte is not correct. In particular, although item 20 in Figure 1 may arguably be considered a junction, none of the devices 22, 26, 30 and 34 shown connected to item 20 comprises a bus controller having a unique address. In this regard, it is important to note that Sitte distinguishes between devices 22, 26, 30 and 34 on the one hand and devices 14, 16, 18, 19, 21, 27 and 29 on the other.

Devices 14, 16, 18, 19, 21, 27 and 29 are smart devices (column 7, lines 36-42; column 7, lines 52-54; column 8, lines 9-10). As such, these devices include a microprocessor and have the capability of formulating and transmitting data packets to the communication bus (column 7, lines 21-24).

In contrast, devices 22, 26, 30 and 34 are not smart devices. Rather, these devices are "standard devices which do not have the capability of formulating and transmitting messages" (column 7, lines 29-31). In other words,

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devices 22, 26, 30 and 34 "do not have the capability of formulating, transmitting or receiving data packets" (column 7, lines 43-45). To be sure, Sitte teaches that the "junction" 20 is what enables the devices 22, 26, 30 and 34 to communicate with the PLC 12. The junction 20 is an "intelligent multiple port interconnect system" which takes the signals from the devices 22, 26, 30, 34 and formulates a data packet for transmission on the communication bus to the PLC 12 (column 7, lines 57-61).

Thus, although Sitte discloses a cable unit which may be considered to comprise a junction 20, the devices 22, 26, 30, 34 which are connected to the junction do not comprise a bus controller having a unique address. Only the smart devices 14, 16, 18, 19, 21, 27 and 29 appear to include a bus controller, but these devices are not connected to the junction 20.

Also, Sitte does not disclose that each "branch cable" which is used to connect a device 22, 26, 30, 34 to the junction 20 includes a second end which is connected to a corresponding electrical connector that in turn is removably connectable to the device, as is required by claim 16. Sitte simply does not disclose how the devices 22, 26, 30, 34 are connected to their corresponding cables. For all we know, the cables are hard wired to the devices, as is standard with proximity switches and photoelectric devices of this sort.

Moreover, contrary to the Examiner's assertion, the devices 22, 26, 30 and 34 are not connected to their corresponding cables with T-connectors. Sitte teaches that the T-connectors 17 are only used to connect the smart devices to

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the bus 10 (column 8, lines 14-17), and as discussed above, the devices 22, 26, 30, 34 are not smart devices.

In addition, Sitte does not disclose that each "branch cable" which is used to connect a device 22, 26, 30, 34 to the junction 20 comprises at least two control signal supply cables, as is required by claim 16. Once again, Sitte does not disclose what is inside the cables connecting the devices 22, 26, 30, 34 to the junction 20. However, we do know that, contrary to the Examiner's assertion, these cables are not similar to the cable 740 shown in Figure 11, since Sitte teaches that the cable 740 is only used to connect a smart device to the common bus 10. To be sure, if the devices 22, 26, 30, 34 were to include two signal wires and two power wires, as does the cable 740, one would presume that the junction 20 would not be necessary.

Thus, contrary to the Examiner's assertion, Sitte clearly does not disclose several critical features of the invention recited in claim 16. Therefore, claim 16 is clearly patentable over any permissible combination of AAPA, Sitte and Sukanuma. Furthermore, since claim 17 depends from claim 16, claim 17 is also patentable over any permissible combination of AAPA, Sitte and Sukanuma.

In paragraph 28 of the Office Action the Examiner has rejected claim 19 under 35 U.S.C. 103(a) as being obvious over AAPA in view of Sitte and Longsdorf. However, claim 19 was previously amended to include many of the features of claim 16 discussed above, such as (1) a number of devices which are connected to a junction and which each comprise a bus controller having a

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unique address; (2) a plurality of branch cable which each comprise a second end that is connected to a corresponding electrical connector which is removably connectable to one of the devices; and (3) a plurality of branch cables which each comprise at least two control signal cables connected between the junction and a corresponding electrical connector.

Therefore, claim 19 is clearly patentable over any permissible combination of the AAPA, Sitte and Longsdorf.

For the foregoing reasons, claims 16, 17 and 19 are submitted as allowable. Favorable action is solicited.

Respectfully submitted,



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